

- 1752.—The most dreadful hurricane.
 1783.—A hurricane of much less violence.
 1804, September 7.—A hurricane and high water that did great damage.
 December, 1811–February, 1812.—A series of earthquakes producing much alarm, but no great damage.
 1813, August 27.—A fearful hurricane, doing great damage; the water rose 18 inches higher than in the corresponding gale of 1804.
 1822, September 27.—Destructive hurricane.
 1854, September 7.—Violent gale.
 1875, September 28.—Severe gale.
 1885.—Destructive hurricane.
 1886, August 31.—Fearful earthquake.
 1893, August 27–8.—One of the most destructive hurricanes.

The paths of West Indian hurricanes, including those that sometimes develop in the Gulf of Mexico, are liable to strike any point of the Gulf or south Atlantic coasts. On the average, there must be three or four hundred such storms in every century, and if these were distributed uniformly along this stretch of coast, 3,000 miles in length, we should have an average of one per century for every 100 miles. But the coasts of Georgia, South Carolina, and North Carolina have probably twice as many of these storms per square mile per century as occur on other portions of these coasts. When we go farther north, into the Middle States, New England, and the Lake region, there are few hurricanes, but the number of severe storms is much larger, owing to the fact that we have here another type of storm, viz, that which passes from the Pacific coast eastward toward Newfoundland.

HIGH TIDES AND APPROACHING STORMS.

Mr. F. Napier Dennison who is now living in Victoria, B. C., in a recent letter says:

I am getting most interesting records from my hydroaerograph records, especially before certain types of storms, as well as the secondary undulations. I often observe abnormally high tides before some of the great Pacific storms strike our coast.

CUMULUS CLOUDS ABOVE FIRES.

Referring to the MONTHLY WEATHER REVIEW, October, 1900, page 433, Mr. R. M. Hoskinson, Voluntary Observer at Waycross, Ware County, Ga., under date of January 16, says:

During a residence of twelve years in Osage County, Kans., I have often seen the dense smoke rising from the burnt grass ascend in cloud-like forms. The tops of some of these show white, like cumulus clouds. In order to be seen thus, the observer must be quite a distance away—a half mile or more—standing with his back to the sun.

Mr. H. H. Ten Broeck of Braidenton, Fla., under date of January 7, 1901, says:

I have often seen columns of smoke capped by cumulus clouds; this has always been when there was little or no wind, the smoke ascending nearly vertically. I have seen them on the prairies of Minnesota and other regions. A few days ago I saw the greatest development. A large brush fire was burning some three miles off, sending up a dense column of smoke, almost vertical. On the top of the column was a mass of cumulus cloud with its peculiar dense convolutions, and blending below with the smoke. Smoke clouds never show the pure brilliant white that cumulus clouds do and they are of a different texture, too, so that it is impossible to mistake one for the other. I have not the least doubt, therefore, but that Mr. Mitchell is right in reporting a cumulus cloud on the smoke of the fire at Bayonne, N. J.

LIGHTNING WITHOUT THUNDER.

Under date of January 17, 1901, Mr. Ten Broeck, of Braidenton, Fla., says:

On page 429 of the REVIEW for October, you publish some observations on lightning without clouds. I have known of lightning without thunder. A house next door was struck; I saw a blinding flash simultaneous with a splitting sound and waited for the crash of thunder, which did not come. The house, which was about 20 feet from the one I was in, was struck on the peak of the roof. The discharge followed the shingles about halfway to the eaves, splitting them up; it then turned and went over the gable and into the house, and so on down to the cellar, stunning the occupants, but not doing much damage.

A friend told me he had a similar experience. He was going along the street during a thunderstorm; there was a bright flash, accompanied by a rumbling noise, as he was passing a house, but no thunder. On looking to find the cause of the peculiar sound, he saw that the chimney had been struck and knocked to pieces, the bricks falling on the roof made the rumbling noise that had attracted his attention; but he was astonished that there was no thunder.

AZTEC NAMES AND THEIR PRONUNCIATION.

Messrs. F. P. Hoeck & Company, of the City of Mexico, writing to the Chief of Bureau in reference to the spelling and pronunciation of the names of the two famous volcanoes Popoca-teptetl and Iztac-cihuatl say:

Each word is two words in itself, and in pronouncing them it should be born in mind that the first word, *Popoca*, is accented on the second syllable (*po*); the second word, *teptetl*, is accented on the first syllable (*ie* or *ta*). *Iztac* is accented on the second syllable (*ac* or *tak*); *cihuatl* is accented on the first syllable (*ci* or *see*); *hu* has the sound of w, or rather is the equivalent of w in English.

The above spellings are as promulgated by the Board on Geographic Names, in their last report. But this is the first time that we have seen any authoritative statement as to the proper pronunciation.

REDUCTION OF THE BAROMETER TO STANDARD GRAVITY.

At the International Meteorological Conference at Munich in 1891 the following resolution was unanimously passed:

It is recommended to all meteorologists to publish barometric readings reduced to normal gravity as soon as possible, starting from the 1st of January, 1901; moreover, in all tables and charts it should be specifically stated that this correction has been applied. At the head of the tables the adopted value of the reduction to normal gravity should be given in such a manner that one can recognize it immediately with an error not greater than one-tenth millimeter.

The Weather Bureau, after many years of argumentation pro and con, adopted the reduction to standard gravity in 1885, but gave it up in 1886, through the mistake and opposition of one person. On January 1, 1899, as has been already announced in the MONTHLY WEATHER REVIEW (see December, 1898, page 550), the use of this important reduction again began and will, doubtless, continue hereafter in accordance with the urgent resolutions of the various meteorological congresses. The readers of the MONTHLY WEATHER REVIEW scarcely need to be reminded that the aneroid barometer is not affected by the variations of gravity, while the standard mercurial barometer is so affected.

The meteorological committee of the International Congress, in its recent meeting at Paris, adopted the following resolutions for the guidance of the international cooperating meteorological services:

1. Beginning with January 1, 1901, and for all stations whose observations are transmitted by telegraph to the central services, the barometric readings should always be reduced to standard gravity.
2. In published tables of observations it will be indicated whether